

# PROCEEDINGS OF THE ROYAL ENTOMOLOGICAL SOCIETY OF LONDON

## SERIES C. JOURNAL OF MEETINGS

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### ORDINARY MEETING

WEDNESDAY, 3rd JUNE, 1959, at 5.30 p.m. (Tea 5 p.m.)

#### AGENDA

1. Confirmation of the Proceedings of the Ordinary Meeting held on 6th May, 1959.
2. Recommendations of candidates for Fellowship. First reading.
3. Recommendations of candidates for Fellowship. Second reading.
4. Announcement of election of new Fellows.
5. Additions to the Library [see p. 16].
6. Admission of Fellows.
7. Exhibits.
8. Communications.

#### 1. Mr. M. F. Claridge

Some closely allied species of the genus *Eurytoma* (Hymenoptera : Eurytomidae)

##### [ABSTRACT]

A study of the taxonomy of some species of *Eurytoma* has shown a correlation between major structural differences and biological differences. Three pairs of closely allied species, which illustrate different degrees of structural similarity, will be discussed. The most obvious differences seem to be correlated with different host preferences. The examples will be taken from species associated with Trypetid and Cynipid gall-formers on Compositae and species associated with Gramineae.

#### 2. Dr. D. J. Lewis

Some biting flies of British Honduras

##### [ABSTRACT]

Professor P. C. C. Garnham and the speaker spent six weeks in British Honduras in 1958 studying the local form of cutaneous leishmaniasis—"chiclero's ulcer" or "Bay sore"—and the phlebotomines which are likely to include one or more vectors of the disease. The country will be described, together with observations on the phlebotomines, simuliids and some other arthropods which attack man.

## NOTICES

The next meeting will be held on *Wednesday, 1st July, 1959* :

**Dr. R. O. Brinkhurst.**—Alary polymorphism in the Gerroidea (Heteroptera).

PROCEEDINGS OF THE ORDINARY MEETING HELD ON 6TH MAY, 1959.

Dr. B. P. UVAROV, C.M.G., F.R.S., President, in the Chair.

Present, 76 Fellows and 13 Visitors.

Before the meeting formally opened the President announced the recent death of two Honorary Fellows, Sir Guy A. K. Marshall, elected in 1895 and a Vice-President in 1919, 1924 and 1932 ; and Mr. H. M. Edelsten, elected in 1902 and a Vice-President in 1928, 1937 and 1938.

The President extended a welcome to Professor Dyce of Cornell University, now on a visit to this country.

The Minutes of the Ordinary Meeting held on 1st April were confirmed and signed by the President.

The names of the following candidates for election were read for the first time : Mr. Kelvin Duncan Ashforth ; Dr. William Geoffrey Harrower Coaton, M.Sc., Ph.D. ; Mr. Friedrich Wolfgang Gess, B.Sc. ; Mr. Christopher Joseph Horton ; and Mr. Peter Sydney Tyler.

For the second time (taken as read) : Mr. Muhammad Zahurul Alam ; Mr. Prakash Nath John, M.Sc. ; Mr. Laurence Alfred Mound ; Dr. Ayyadevara Mohan Rao, Ph.D., B.Sc., M.S. ; and Mr. Ian James Wyatt.

The President announced that the following had been elected Honorary Fellows of the Society :

Miss D. J. Jackson, North Cliff, St. Andrews, Fife.

Dr. A. M. Massee, O.B.E., East Malling Research Station, Kent.

Professor V. B. Wigglesworth, C.B.E., M.D., F.R.S., Department of Zoology, The University, Cambridge.

The Secretary read the names of the following newly elected Ordinary Fellows of the Society : Mr. Michael Antony Cornes, 238 Waterloo Street, Burton-on-Trent, Staffs. ; Mr. Joseph Firmin, 12 Worthington Way, Lexden, Colchester, Essex ; Dr. Charles Joseph Goodall, 2 Derwent Avenue, Morecambe, Lancs. ; Mr. William Ronald Kellett, 176 Hibson Road, Nelson, Lancs. ; Mr. William Percy Langridge, Tsetse Survey and Control, Kabete, Kenya ; Mr. Peter Henry Langton, 17 Warnham Road, Horsham, Sussex ; Mr. William Ivan St. George Light, N.A.A.S., Olantigh Road, Wye, Ashford, Kent ; Mr. Keith Kerr Reid, 7 Westbury Court Road, Westbury-on-Trym, Bristol ; and Miss Janina H. B. Schlesinger, B.Sc., A.R.C.S., 8 Stirling Mansions, Canfield Gardens, London, N.W.6.

Thanks were voted to donors of gifts to the Library since the last meeting.

Mr. M. A. Cornes, Mr. G. J. Rose and Mr. L. R. Taylor signed the Obligation Book and were admitted Fellows of the Society.

The following papers, accepted for publication in the *Transactions*, were read in title :

"The *Meligethes* of Abyssinia (Coleoptera : Nitidulidae)", by A. M. Easton.

"Check-List of the Scolytidae and Platypodidae (Coleoptera) of Ceylon", by K. E. Schedl. [Communicated by Dr. K. Mellanby.]

"The female genitalia of the Heteroptera : morphology and bearing on classification", by G. G. E. Scudder.

"On the skeleto-muscular mechanisms of the anterior abdominal segments of certain adult Hymenoptera", by J. R. T. Short.



"A synopsis of the Ethiopian Agromyzidae (Diptera)", by K. A. Spencer.

"A new genus of Philotarsidae (Corrodentia) and new species of this and related families from Hong Kong", by I. W. B. Thornton.

"The effect of temperature, particularly during diapause, on the development of the egg of *Leptohylemia coarctata* Fallén (Diptera: Anthomyiidae)", by M. J. Way.

Dr. D. J. Lewis made a communication on the value of follicular relics of many blood-sucking Diptera for the recognition of parous females which include the individuals containing the infective stages of various pathogenic organisms. He showed photographs of the relics in *Chrysops bicolor* Cordier and a Tanganyika member of the *Simulium neavei* Roubaud complex, and pointed out that those in the latter were very large, possibly indicating that the follicular epithelium shrinks little during egg development and that the fly sucks blood soon after laying eggs.

Dr. R. C. Rainey and Mr. L. R. Taylor gave papers on air currents and the behaviour of air-borne insects, Dr. Rainey dealing with locusts and Mr. Taylor with aphids. Abstracts of these papers appeared on pages 9 and 10.

In the discussion which followed, Dr. J. L. Cloudsley-Thompson asked the relationship of wind to the flight of aphids. His own experiments with woodlice had shown that their distribution was often influenced by the movement of the air around them. Mr. Taylor replied that aphids fly only by day and take off almost regardless of wind speed, provided only that extension of the wings is physically possible.

Dr. C. R. Ribbands said he was interested in the statement discounting differing specific flight heights for different species; he wondered whether account had been taken of the vertical components in wind speed. Mr. Taylor replied that he had himself no measurements of vertical air velocity, which, under the influence of turbulence, could probably amount to half the corresponding horizontal wind speeds.

Dr. K. Mellanby commented on the rate of movement of a swarm being as low as 5 km./hour in a wind of 35 km./hour, and Dr. Rainey stated that this was not unusual; the flight of the individual locusts was intermittent, much of it up-wind, so that the swarm as a whole moved more slowly than the wind—in fact, with the wind blowing through it.

In reply to Dr. T. Lewis, whose experience in trapping thrips had shown that, relative to the larger species, the smaller species were more concentrated near the ground, Mr. Taylor said that the slope of the lines in his graphs depended on the "total buoyancy" of the insect, which includes effects of flight behaviour. It was possible that the larger species had a stronger take off, so that their upward flight was more rapid, and their "total buoyancy" correspondingly greater.

Mr. Taylor continued, in further reply to Dr. Ribbands, that the terminal velocity of freely falling aphids was 5.5 feet per second.

Dr. C. B. Williams enquired of Dr. Rainey whether any attempts had been made to assess directly the relative movements of air and insects in a swarm—soap bubbles had been employed in similar studies with butterflies. Dr. Rainey replied that the nearest approach to such observations had been a study of cloud movements in serial photographs, taken vertically upwards through high-flying swarms, and the use of low-lift pilot balloons.

Mr. A. C. Neville referred to an observation by Hankin, describing how dragonflies, which had been gliding with abdomen depressed in sunshine, raised the abdomen as the sun was obscured by cloud and increased speed, perhaps to avoid stalling as a result of loss of lift from thermal up-currents; were locusts known to behave in this way? Dr. Rainey did not know of any comparable observations, but mentioned that a loss of lift due to a disappearance of thermal up-currents

could be quite independent of any change of forward speed such as might lead to stalling.

In thanking the speakers, the President commented on the difference in approach represented by the two papers, one mainly concerned with the statistical analysis of large numbers of observations on many different species, and the other with detailed studies of individual observations on a single species; he personally felt that the latter approach might perhaps prove the more fruitful.

PAUL FREEMAN, *Honorary Secretary.*

#### ADDITIONS TO THE LIBRARY

##### *Presented*

- Aubert, J. *Plecoptera*. 8vo. Lausanne, 1959. [*Insecta Helvetica. Fauna.* 1.] [Musée Zoologique de Lausanne.]
- Baldur, W. V. *Obligatory and facultative insects in rose hips: their recognition and bionomics*. 8vo. Urbana: Univ. Illinois Pr., 1959. [The Publishers.]
- Bielawski, R. *Klucze do oznaczania owadów Polski*. XIX. *Coleoptera*. 76. *Coccinellidae*. 8vo. Warsaw, 1959. [*Serii Kluczy* 26.] [Polish Entomological Society. By Exchange.]
- British Museum (Natural History). *Ruwenzori Expedition*, 1952. 8vo. London, 1959.
- Vol. II, No. 1. *Coleoptera: Chrysomelidae*, by G. E. Bryant.
- „ 2. *Carabidae-Trechinae*, by R. Jeannel.
- „ 3. *Gyrinidae*, by P. Brinck.
- „ 4. *Mordellidae & Scaphitidae*, by M. E. Franciscolo.
- „ 5. *Cantharidae & Malachiidae*, by W. Wittmer.
- „ 6. *Erotylidae*, by A. Villiers.
- „ 7. *Diptera: Culicidae: subfam. Dixinae, Anisopodidae & Ptychopteridae*, by Paul Freeman.
- „ 8. *Odonata*, compiled by D. E. Kimmins.
- „ 9. *Trichoptera*, by D. E. Kimmins.
- „ 10. *Ephemeroptera, Plecoptera & Neuroptera*, by D. E. Kimmins. [Trustees of the British Museum.]
- Britton, W. E. *Check-list of the insects of Connecticut*. 8vo. Hartford, 1920. [*Bull. Conn. geol. nat. Hist. Surv.* 31.] [The Publishers.]
- Guide to the Insects of Connecticut*. 8vo. Hartford, 1911→.
- Pt. 1. *General introduction*, by W. E. Britton. 1911.
- „ 2. *The Euplexoptera & Orthoptera*, by B. H. Walden. 1911.
- „ 3. *The Hymenoptera, or wasp-like insects*, by H. L. Viereck & others. 1916.
- „ 5. *Odonata*, by P. Garman. 1927.
- [*Bull. Conn. geol. nat. Hist. Surv.* 16, 22, 39.] [The Publishers.]
- Leatherdale, D. *The plant galls of Norway*. *Univ. Bergen Arb. naturv. R.* 8: 1-56, 1959. [The Author.]
- Pavlovsky, E. N. [*Handbook of insect dissection*.] 8vo. Moscow, 1957. (*In Russian*.) [The Author.]
- [*Third Congress of the All-Union Entomological Society, Tiflis, 4-9 October, 1957. Abstract of Communications*.] 2 vols. 8vo. Moscow, 1957. (*In Russian*.) [Academy of Sciences, U.S.S.R.]
- Townes, H. & M. *Ichneumon-flies of America north of Mexico*. 1. *Subfamily Metopiinae*. 8vo. Washington, 1959. [*Bull. U.S. nat. Mus.* 216.] [Smithsonian Institution.]